

TITLE: HIGH PERFORMANCE SCANNER FOR USER INPUT DEVICES

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3 **ABSTRACT OF THE INVENTION**

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5 An improved scanner for a wireless interface device that services communications
6 between a wirelessly enabled host and at least one user input device. The wireless interface
7 device is broadly comprised of a wireless interface unit that provides an interface between a user
8 device and a wirelessly enabled host. The user input device comprises a switch matrix having a
9 plurality of rows and columns. A keyboard scanning circuit in the wireless interface device is
10 operable to scan the rows and columns of the user input device, wherein the scanning circuit
11 detects operation of a key associated with the user device by detecting a transition in the voltage
12 level of at least one row in the switch matrix from a first state to a second state and thereafter
13 forces the row back to the first state thereby decreasing the scanning interval for detecting row
14 transitions. The reduced scanning interval provided by the method and apparatus of the present
15 invention allows a wireless input device to operate with lower power consumption, thereby
16 extending the operating period available using battery power.